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Abstract

The exhaust gas aftertreatment device according to the invention having a reforming unit for generating hydrogen by steam reforming, partial oxidation of hydrocarbons and/or mixed forms thereof is distinguished by the fact that the reforming unit is arranged directly in the main exhaust gas stream from an internal combustion engine. The steam and residual oxygen which are required for the reforming preferably originate from the exhaust gas. The step of providing the required reducing agents consists in briefly switching the internal combustion engine, which is predominantly operated in lean-burn mode and the exhaust gas from which is undergoing the aftertreatment, to rich-burn mode, allowing reforming by means of the reforming reactor according to the invention using the hydrocarbons that are present in the exhaust gas.